

Women's Christian College

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Lighted to Lighten



ACADEMIC ACTIVITIES 2021-2022

DEPARTMENT OF PHYSICS



Academic activities

2021-22

Webinar on Need for Nuclear Energy

The Department of Physics in collaboration with Indira Gandhi Centre for Atomic Research (IGCAR) organized a webinar on “Need for Nuclear Energy” on June 25th 2021. The workshop was mainly for students in the college. The resource persons Dr R. Venkatesan, Division Head, Radiological and Environmental Safety Division, Smt. Jalaja Madam Mohan, Head of Technical Coordinator and Public Awareness section, Mr.K. Parthipan, Scientific Officer and Mr. M. Ramu, Senior Scientific Assistant. from IGCAR addressed the gathering. There were nearly 145 participants who were benefitted from the webinar.

DEPARTMENT OF PHYSICS
Women's Christian College
(An autonomous institution affiliated to the University of Madras)
Re-Accredited by NAAC in July 2019 with Grade A-

in collaboration with
Indira Gandhi Centre for Atomic Research

cordially invites you to a webinar titled
NEED FOR NUCLEAR ENERGY

ON
June 25, 2021 - Friday
2 : 30 PM to 4 : 30 PM

Resource Persons:
Dr R Venkatesan, Head RESD, IGCAR
Smt. Jalaja Madan Mohan, Head TCPAS
Mr K Parthipan, Scientific Officer IGCAR
Mr M Ramu, Sr Scientific Assistant

Program Schedule:
Technical talk, Virtual tour, Online quiz

E-certificates will be provided for participants after the successful submission of the feedback form
For details contact : +919840627378

MEETING ID: 993 9614 1072
PASSCODE: Wec2021
zoom



Faculty development program

The three-day faculty development program on Question Bank Preparation for LOCF was organized by the Departments of Physics and Information Technology along with the IQAC, WCC from 21.07.21 to 23.01.21. The resource person for the FDP was Dr. C. D. Lethi, retired Associate Professor in Zoology, Holy Cross College, Trichy. Dr. Lethi has served as the Coordinator of IQAC, Assessor and Peer-team Coordinator for NAAC, Master trainer in effective classroom communication and Consultant for educational institutions, industries and other organizations for quality enhancement and human resource development. The FDP trained the faculty in the preparation of OBE enabled question bank so as to test students' cognitive levels as specified by Bloom's taxonomy.

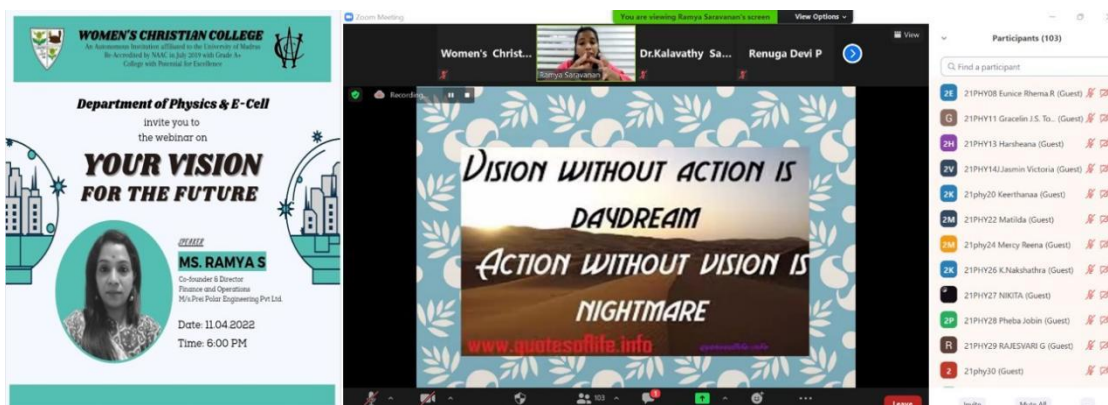


A program was organised by WCC's Institution Innovative Cell (IIC) in collaboration with the Department of Physics on 20th December 2021 to kindle a spark and create a platform for applying design thinking in any process or product that the students develop. The resource person Dr. Lisa Sheba Rani J, Innovation Ambassador of IIC addressed 64 students. The students were given insights on how to systematically foster the culture of innovation in Higher Education Institutions (HEIs) across the country. The event on the whole was a great experience as the students actively participated and learnt the concepts of the five stages in the process of design thinking and implementation.



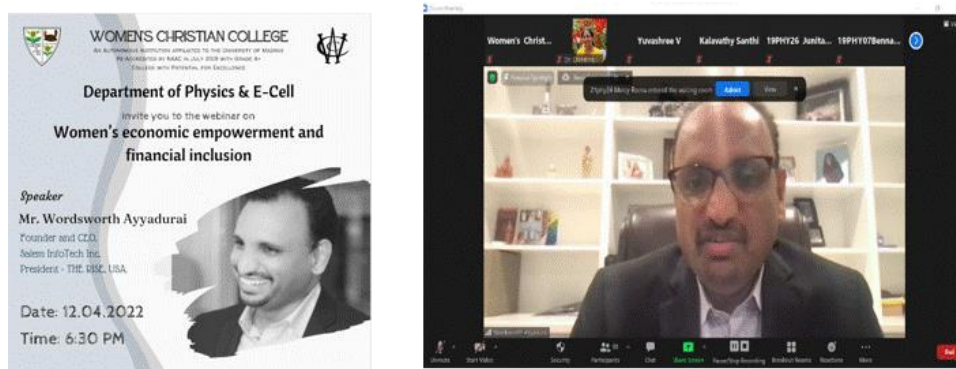
Webinar on “Your Vision for Your Future”

The Department of Physics in collaboration with the E-Cell of Women's Christian College, organized a webinar on “Your Vision for Your Future”, on 11th April 2022. Dr.Kalavathy Santhi, Head, Department of Physics welcomed the participants and introduced the speaker Ms. Ramya S, Co-founder and Director, Finance and Operations, M/s Prei Polar Engineering Pvt Ltd. Ms.Ramya shared her cumulative ideas and strategies towards having a vision for an individual. A total of 103 students participated in the webinar. Dr.T.S.Renuga Devi, Assistant Professor from the Department of Physics delivered the vote of thanks.



Webinar on Women’s Economic Empowerment and Financial Inclusion

The Department of Physics in collaboration with the E-Cell of Women's Christian College, organized a webinar on “Women’s Economic Empowerment and Financial Inclusion”, on 12th April 2022. Dr. A. Christina Nancy, Assistant Professor from the Department of Physics welcomed the gathering and introduced the keynote speaker, Mr. Worthworth Ayyadurai, Founder and CEO of Salem Infotech, Inc. and President of the RISE, USA. He boosted the confidence of the participants to explore the opportunities for women's economic empowerment. The webinar was very insightful and it made to rethink career options and the importance of women entrepreneurs. 98 participants were benefitted by the webinar.



Physics exhibition

Physics exhibition was conducted by the Department of Physics, on 22nd & 23rd April 2022. The inauguration started with the prayer song by the department choir students. Dr. Kalavathy Santhi, Head of the department of Physics addressed the gathering by welcoming all to the occasion. Our Principal Dr. Lilian I Jasper declared the event open by ribbon cutting ceremony and congratulated the department for taking the initiative to conduct such a grand event. The exhibition was open to the school students of 9th and 11th grade on 22nd April from 9 am. 173 students from six different schools (MCC Matriculation Higher Secondary School, MCC Higher Secondary School, Bentick Higher Secondary School, three Government Higher secondary schools) participated in the program in different time slots. The exhibition was open to all students and Faculty of WCC on both days and to parents on 23rd April, 2022 from 9 am. The Physics exhibition provided a great platform for scientific explorations and innovation for the future scientists.



E-Quiz competition

The Hi-PHY club of the Department of Physics in collaboration with Centre for Environmental Studies organised an E-Quiz competition on October 18th 2021. There were 27 participants from the Departments of Plant biology and plant biotechnology, Home science, Psychology, Chemistry, Computer Science, History and Physics. The quiz had two levels, the first level was prelims and the second level was mains.

Woman's Christian College
(An autonomous institution affiliated to the University of Madras)
Recognized by NAAC in July 2019 with Grade A+
College with Potential for Excellence

HI-PHY CLUB, DEPARTMENT OF PHYSICS
in collaboration with
CENTRE FOR ENVIRONMENTAL STUDIES

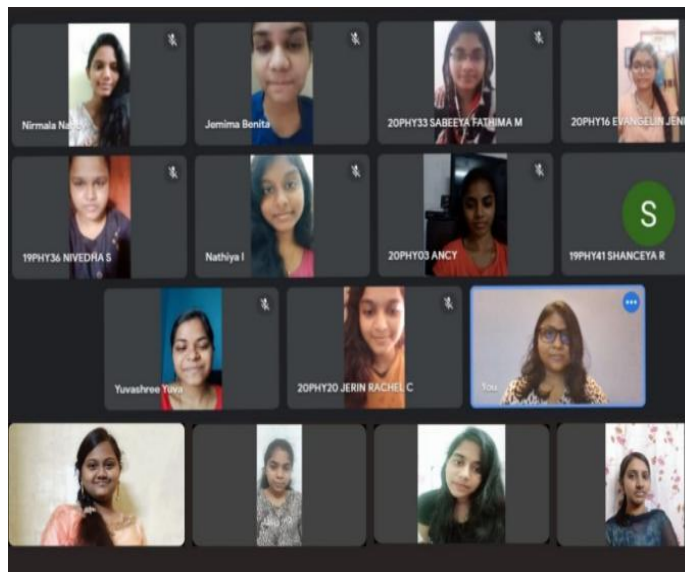
cordially invites you for the
'E-Quiz competition'

Date: October 18, 2021
Timing : 2:30 PM

PRIZES WILL BE AWARDED TO
THE WINNERS

For registration scan the code
For queries contact :
Angel Swetha A
+919600146487
Nathiya I
+9198930933062
or click [here](#)

E-certificates will be provided for all the participants



A significant and the most-awaited annual event of the Physics Association, HI-PHY 2022, the Intercollegiate Physics Fest was conducted on 27th April 2022. Ten city colleges both shift 1 and shift 2 participated in the event. The inaugural function was graced by our beloved Principal and Vice-Principal. It commenced with a prayer invoking God's blessings followed by the release of the annual magazine of the department "Quark ". The inaugural speech was delivered by Dr. Michael. A. Kuhn, Postdoctoral Scholar, California Institute of Technology, whose talk enlightened the participants about the 'Formation of Stars'. Students from many city colleges participated in the inter- collegiate competitions and won prizes. The students of Madras Christian College, Tambaram won the over-all championship.



Industrial visit to Floranix

A field visit to Floranix College was organised on 11th December 2021 for the students of the Core Elective course, 'Microprocessor and Microcontroller 8051' with an aim to improve critical thinking in cutting edge technologies that have real applications in industry and research. Nineteen students of III B.Sc. Physics accompanied by two faculty members, Dr. Hannah Ruben and Dr. Sharmi Kumar visited Floranix, Electronics manufacturing company, Pvt. Ltd. in Chennai. The students were given an exposure to develop software programs to interface

Fludino with Microcontroller 8051 using C programming. Later, students were made to observe many working projects designed using embedded microcontroller system. The field visit to the company enhanced the technical knowledge and bench skills of the students.



Workshop on Academics to Applications

The National Centre for Coastal Research (NCCR) organized a Two-day Workshop on “Academics to Applications (A2A) - Coastal Pollution and Mapping” to commemorate the National Science Day on 28th February and 1st March 2022, at the National Institute of Ocean Technology(NIOT), Pallikaranai, Chennai. Twenty students from the Department of Physics attended this workshop along with two faculty members, Dr. A. Christina Nancy and Dr. T. S. Renuga Devi. The students’ learning outcome of the workshop was evaluated through various scientific competitions. The enthusiastic participation of the students in the quiz competition proved their understanding of the topics discussed on both days.



Educational visit to Birla Planetarium

Dr. A. Christina Nancy and Dr. M. Giruba accompanied 13 students of non-major elective course -‘Astrophysics’ and 12 students of III B.Sc. Physics of Core Elective course – ‘Astrophysics and Astronomy’, to B. M. Birla Planetarium in Periyar Science and Technology Centre campus, Chennai on 5th May 2022. The planetarium hosted a virtual tour of the night sky. Eight galleries with over 500 exhibits and a most advanced Hybrid Projection System having a 15-metre hemispherical dome to view planetary objects were open to the students. A new facility called the Science on a Sphere which helps in the illustration of earth system science, showcased high-resolution video on a suspended globe. Through this system students were able to understand complex environmental processes and also viewed the real-time data from NASA involving weather, mobile traffic, air traffic, earthquakes, sea-level rise, etc.



Educational visit to Kodaikanal Observatory

The final year students of UG Physics department visited the Kodaikanal Observatory on 23rd May 2022. A guided educational tour for 40 students accompanied by Dr. T.S. Renuga Devi and Dr. J. Juanita Saroj, started from the astronomy museum on campus for the students. The museum displayed the sun and astronomy posters and models for the students to be benefitted. The students had an opportunity to visit the Heritage Library at Kodaikanal Solar Observatory which had the most comprehensive compilation of solar data since the 19th century. The students visited the full-disk Photoheliograph which takes 20 cm white light pictures of the Sun on a daily basis using photographic films since last century. Also, they learnt about the H-alpha telescope that makes full-disk image of the sun and also how the images are manipulated using the software for study purposes. Finally, the students saw the working of Coelostat, the device consisting of a flat mirror that is turned slowly by a motor to reflect a portion of the sky continuously into a fixed telescope. The students were thrilled to know that the Evershed Effect was discovered at the Kodaikanal Observatory in 1909. Overall, the educational trip was quite interesting and informative.

